

1. *The indefiniteness rejections of claims 4-6 are traversed in part and overcome by amendment in part..*

Claims 4-6 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite due to the recitation "one or more POPS blocks" and due to the recitation "flanked". At page 2, the Office Action states that one skilled in the art would not be able to differentiate between a single "POPS block" and a series of contiguous "POPS blocks" and would not be able to determine whether regions of 2'-O-modified nucleosides flank each POPS block or flank a series of contiguous POPS blocks. Applicants respectfully traverse this rejection.

At page 6, lines 13-26, of the specification, "POPS blocks" are defined to be oligonucleotide regions containing alternating nucleoside phosphodiester (PO) and nucleoside phosphorothioates (PS). At page 6, line 27-28, the specification states that a POPS block comprises from about three to about thirty-five nucleosides. Applicants submit that one of skill in the art would understand that the entire region of nucleosides characterized by alternating phosphodiester and phosphorothioate linkages constitutes a single POPS block. In short, the classification between a single POPS block and a series of contiguous POPS blocks is a distinction without significance. However, in the interests of clarity, Applicants have amended claim 4 to require that each POPS block be flanked by a region of 2'-O-modified ribonucleosides.

Applicants submit that claim 4, as amended, conveys a definite meaning to one skilled in the art. Accordingly, Applicants respectfully request that the rejection of claims 4-6 under 35 U.S.C. § 112, second paragraph, be reconsidered and withdrawn.

2. *Claims 4-6, as amended, is not anticipated by Arnold, et al.*

Claims 4-6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Arnold *et al.* This rejection is addressed and overcome by Applicants' amendment to claim 4.

Arnold *et al.* teaches oligonucleotides containing regions of methylphosphonate internucleoside linkages. Some of the oligonucleotides disclosed in Arnold *et al.*

additionally contain regions of alternating phosphodiester and phosphorothioate internucleoside linkages.

As amended, claim 4 is directed to oligonucleotides containing regions of deoxyribonucleosides with alternating phosphodiester and phosphorothioate internucleoside linkages and regions of 2'-O-substituted ribonucleosides having phosphodiester, phosphotriester, phosphorothioate or phosphoramidate internucleoside linkages. The oligonucleotides claimed in amended claim 4 do not contain methylphosphonate internucleoside linkages. Therefore, Arnold *et al.* does not anticipate amended claims 4-6. Accordingly, Applicants respectfully request that the rejection of claims 4-6 under 35 U.S.C. § 102(b) be reconsidered and withdrawn.

CONCLUSIONS

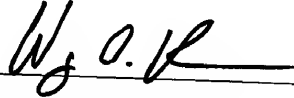
In view of the amendments and arguments set forth above, Applicants submit that each of the rejections contained in the Office Action mailed on June 29, 2000 has been addressed and overcome, and that the claims are in condition for allowance. If the Examiner believes that any further discussion of this communication would be helpful, he is invited to contact the undersigned at the telephone number provided below.

Pursuant to 37 C.F.R. § 1.136, Applicants request a three-month extension of time, up to and including December 29, 2000 to respond to the Examiner's Action mailed on June 29, 2000. Please charge our Deposit Account No. 08-0219 the required fee of \$445.00 pursuant to 37 C.F.R. § 1.17(a)(3). This fee charge reflects the Small Entity status of this application.

Pursuant to 37 C.F.R. § 1.136(a)(3), the Examiner is authorized to charge any fee under 37 C.F.R. 1.17(a) applicable in the instant, as well as in future communications, to Deposit Account No. 08-0219. Such an authorization should be treated as a constructive petition for extension of time in the concurrent as well as future communications in the above-identified application.

No other fees are believed to be due in connection with this response. However, please charge any payments due or credit any overpayments to our Deposit Account No. 08-0219.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Wayne A. Keown", is written over a horizontal line.

Wayne A. Keown, Ph.D.
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4. (Amended) A hybrid oligonucleotide consisting of one or more deoxyribonucleotide POPS blocks [flanked by one or more region of 2'-O-substituted nucleosides] and one or more regions of 2'-O-substituted ribonucleotides having internucleoside linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate and phosphoramidate linkages, wherein each of said POPS blocks is flanked by a region of 2'-O-substituted ribonucleosides.